### Message

From: King, Scott@ARB [scott.king@arb.ca.gov]

**Sent**: 7/9/2019 11:23:28 PM

To: Ungvarsky, John [Ungvarsky.John@epa.gov]

Subject: FW: documentation in support of VMT offset demonstration for Coachella Valley

Attachments: ATT00001.txt; Coachella 2012 2026 Total VMT Offset - MPO 005 Activity - June 6 2016 - Adjust for Pop and

TripsTo\_EPA.xlsx

## Hi John.

Here is the VMT analysis spreadsheet from Mani. Neither the on-road inventory from the AQMP nor our 2018 SIP update will match the on-road inventory used for the VMT offsets since the resting and diurnal emissions were not included.

Let me know if you need anything else.

Scott

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From: Kalandiyur, Nesamani@ARB <nesamani.kalandiyur@arb.ca.gov>

Sent: Tuesday, July 09, 2019 3:38 PM

To: King, Scott@ARB <scott.king@arb.ca.gov>

Subject: RE: documentation in support of VMT offset demonstration for Coachella Valley

Hi Scott.

As we discussed yesterday, the difference in emissions between VMT offset and the inventory is due to exclusion of resting loss and diurnal loss emissions. Herewith I've attached a spreadsheet that demonstrates VMT offset analysis.

Thanks,

Nesamani

From: Ungvarsky, John < <a href="Ungvarsky.John@epa.gov">Ungvarsky.John@epa.gov</a>>

Sent: Friday, July 05, 2019 3:59 PM

To: King, Scott@ARB <scott.king@arb.ca.gov>

Cc: OConnor, Karina < OConnor. Karina@epa.gov>; Sutkus, Carol@ARB < carol.sutkus@arb.ca.gov>; Zorik

Pirveysian <zpirveysian@aqmd.gov>; Lee, Anita <Lee.Anita@epa.gov>

Subject: documentation in support of VMT offset demonstration for Coachella Valley

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Scott -

I hope you had a great holiday and weekend.

I am currently drafting the Coachella Valley VMT offset demo discussion for the NPR. I was unable to locate documentation showing how the on-road numbers in tables 7-9 and 7-10 of the 2016 AQMP were calculated. The table below ("Coachella Valley Base Year and Attainment Year On-Road Emissions Inventories") shows the VOC on-road inventory from the documentation Zorik sent last week (column "SCAQMD (11/30/16)"), the 2018 SIP Update, and tables 7-9 and 7-10.

Attachment D in Appendix III of the 2016 AQMP includes some documentation for the South Coast but not Coachella. For example, see tables D-2 below. Similar tables should exit for Coachella Valley but I could not find them in the submittal. Can you please look into where the Coachella Valley VMT documentation can be found, and once found, share it with me?

Please let me know if you have any questions.

## **Thanks**

# **Coachella Valley Base Year and Attainment Year On-Road Emissions Inventories**

(summer planning inventory, tpd)

|                                       | Source                            |  |                            |                        |  |
|---------------------------------------|-----------------------------------|--|----------------------------|------------------------|--|
| Category                              | SCAQMD<br>(11/30/16) <sup>a</sup> | 2016<br>AQMP<br>VMT<br>Offset<br>Demo <sup>b</sup> | 2018<br>SIP<br>Update      | Difference             |  |
| 2012 On-<br>Road<br>Mobile<br>Sources | 6.4                               | 4.8  | 6.4 <sup>c</sup>           | 1.6                    |  |
| 2026 On-<br>Road<br>Mobile<br>Sources | 2.9                               | 2.0  | 2.9° –<br>3.0 <sup>d</sup> | 0.9 – 1.0 <sup>d</sup> |  |

| Difference | 3.4 - 3.5 | 2.8 | 3.4 -<br>3.5 | - |
|------------|-----------|-----|--------------|---|
|            |           |     | 3.5          |   |

<sup>&</sup>lt;sup>a</sup> Email dated June 28, 2019, and attachments dated November 30, 2016, from Zorik Pirveysian, SCAQMD.

#### Attachment D

Table D-2 2012 Summer Planning Emissions(tons per day)in the South Coast Air Basin

|  | lager e                                | AS SAUCES<br>SCHOOL           | lagen e<br>des               | 028883                       | 79450,08<br>Gas              | Swarp<br>Oteresi                          | Searcy S<br>Sea              | 050000                       | 36664 B<br>384               | Steres                       | Crises 8<br>See              | 058980                       | Sessors<br>Sex               | Sisses<br>Contei             | Marke S<br>Sees                  | \$5,6846                     | 860, Yek<br>Sek                 | 200002                       | 90000<br>70000                  |
|--|--|-------------------------------|------------------------------|------------------------------|------------------------------|---|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|----------------------------------|------------------------------|---------------------------------|------------------------------|---------------------------------|
| 0000.0044<br>0007.000  | 008113068<br>384100                    | 06958<br>6279                 | 17880X<br>6807               | 37373<br>8272                | 17636<br>638                 | 63747<br>4327                             | 898<br>63                    | 84853<br>7876                | 4963<br>363                  | 4323<br>384                  | \$388<br>309                 | 8774<br>782                  | 2686<br>82                   | 4548<br>540                  | 47533<br>372                     | 8870<br>68                   | 30904898<br>982480              | 297983<br>27888              | 18 00 0 8 19<br>88 0 9 9 1      |
| Restricte<br>Room (Dath<br>Idday (Dath<br>Itaan (Dath<br>Itaan (Dath | Superior des<br>31.5<br>33.65          | Sacretons<br>SS<br>SS<br>SS   |                              | 0.88<br>2.43<br>4.60         | 0.88<br>8.43<br>8.73         | ::<br>::::::::::::::::::::::::::::::::::: | 3,38<br>8,52<br>8,83         | 6,95<br>8,68<br>8,88         | 8.68<br>8.38<br>8.38         | 8.83<br>8.34<br>8.34         | 0.85<br>3.90<br>3.98         | 6.01<br>9.80<br>9.80         | 0.06<br>9.60<br>9.60         | 88                           | 3,38<br>0,00<br>6,60             | 0,00<br>0,00<br>0,00         | 33.60<br>0.32<br>27.40          | 9.5 <b>4</b><br>0.38<br>0.00 | 40.88                           |
| total 8x   | 38.78                                  | 3.30                          | 3.30                         | 2.24                         | 2.49                         | 2.4%                                      | 0.84                         | 8.46                         | 0.38                         | 2.38                         | 37.48                        | 1.28                         | 4.43                         | <.88                         | 8, 89                            | 8.62                         | 43.32                           | 3.38                         | 2328                            |
| Document<br>Bot Sowel<br>Document<br>Describing                      | 13 .33<br>13 .36<br>63 .36<br>3 .37    | 3,30<br>3,30<br>3,36<br>3,30  | 9,90<br>9,80<br>9,98<br>9,98 | 9.63<br>9.63<br>9.63<br>9.60 | 1.40<br>1.20<br>1.40<br>1.40 | 0.62<br>0.60<br>0.60<br>0.60              | 0.08<br>6.08<br>6.08<br>6.08 | 0.06<br>0.06<br>0.06<br>0.06 | 0.98<br>0.98<br>0.98<br>0.98 | 0.36<br>0.36<br>0.36<br>0.36 | 3,90<br>3,30<br>3,38<br>3,30 | 9.63<br>9.60<br>9.63<br>9.60 | 1.00<br>1.00<br>1.03<br>1.00 | 6.03<br>6.03<br>6.03<br>6.03 | 6, 02<br>6, 06<br>6, 02<br>6, 02 | 0.06<br>0.06<br>0.06<br>0.06 | 13.38<br>13.38<br>43.48<br>3.38 | 3.34<br>3.30<br>3.30<br>3.30 | 23.33<br>23.36<br>88.48<br>3.38 |
| Status.  | 343.32                                 | 2.32                          | 8.85                         | 8.8%                         | 5.88                         | \$ 75                                     | 0.00                         | 8.46                         | 0.50                         | 2, 32                        | 5.85                         | \$183                        | 8.36                         | 3.58                         | 0.34                             | 2.23                         | \$82.69                         | 9,50                         |                                 |
| Curseco, Mo<br>Rosa Music<br>Sictive Bada<br>Sicarca, Ba             | 600.00 800.0<br>880.00<br>9.00<br>9.00 | 60068<br>6088<br>6080<br>6080 | (8-53<br>5-83<br>58-37       | 3.86<br>3.86<br>3.86         | 8.38<br>8.35<br>8.46         | 4.38<br>3.38<br>3.38                      | \$.88<br>2.25<br>3.28        | 18.89<br>3.49<br>2.50        | 3.88<br>0.64<br>3.63         | 0, 8¢<br>6,6¢<br>6,6¢        | 6, 88<br>8, 88<br>8, 88      | \$4.44<br>6.66<br>6.66       | 0.38<br>8.33<br>8.33         | 0.88<br>8.88<br>8.86         | 8.99<br>8.88<br>8.88             | 2.08<br>2.08<br>2.00         | 296.00<br>0.96<br>201.04        | 48, 86<br>2, 58<br>5, 50     | 9338,80                         |
| tomai, ma  | 1,101, 93                              | 4.82                          | 38, 52                       | 3.7%                         | 28.36                        | 6.38                                      | 2.38                         | 22.23                        | 2.89                         | 6, 88                        | 8,88                         | 58.65                        | 8.68                         | 34.42                        | 8.26                             | 2.28                         | 2304.40                         | 48,40                        | 3,880,84                        |
| Doodee of<br>Roo Sob<br>Dobe Sob<br>Door So                          | 31.63<br>31.63<br>24.63                | 0.88<br>0.88<br>0.00<br>0.00  | 8.63<br>0.01<br>8.04         | \$0.00<br>0.06<br>0.06       | 3 - 34<br>0 - 34<br>3 - 36   | 10.38<br>1.38<br>5.38                     | 9.46<br>9.90<br>9.30         | 88, 83<br>8, 70<br>9, 60     | 4.29<br>4.45<br>4.24         | 2.84<br>2.88<br>2.88         | 0.84<br>0.04<br>0.04         | 38.83<br>0.06<br>0.06        | 0.04                         | 3.34<br>3.30<br>3.40         | 3,42<br>3,40<br>3,40             | 0,85<br>0,65<br>0,65         | 89,6%<br>9,6%<br>81,6%          | 184.73<br>7.49<br>7.45       | 138.83                          |
| 39343 XX   | 304.48                                 | 0.88                          | 8.68                         | \$0.49                       | 2.36                         | 38.49                                     | 8,80                         | 83:65                        | 4.83                         | 5.44                         | 0.88                         | 38.87                        | 0.38                         | 2-38                         | 5, 48                            | 8,85                         | 304.98                          | 177.68                       |                                 |
| MCC. D. Bos<br>Rock (Data<br>(Addan (Bask<br>(Data)                  | 486,008<br>0,94<br>0,00<br>0,00        | 0.09<br>0.00<br>0.00          | 0.0%<br>0.0%<br>0.0%         | 0.40<br>0.00<br>3.40         | 0.36<br>0.38<br>0.38         | 3.3°<br>5.50<br>6.60                      | 9, 90<br>9, 90<br>9, 90      | \$.75<br>8.65<br>8.66        | 6.05<br>8.65<br>8.36         | 4-28<br>2-25<br>3-30         | 0.00<br>0.00<br>9.00         | 0.07<br>0.00<br>0.00         | 0.00<br>0.00<br>0.00         | 5, 62<br>5, 60<br>6, 60      | 5, 90<br>5, 90<br>6, 90          | 8, 63<br>8, 63<br>6, 63      | 6.793<br>8.69<br>0.08           | 6.76<br>6.45<br>9.30         | 5.89                            |
| total 8c   | 3 - 38                                 | 5.38                          | 9.30                         | 9.48                         | (2,400 ( )<br>(2,400         | 6,87                                      | 0 - 03                       | 8.28                         | 0.98                         | 3.38                         | 00-00-00 100<br>91,36        | 00-00-00-00<br>3.32          | carenene ica<br>6,700        | 0.0000 00<br>6.63            | 0.04<br>0.04                     | 0.02<br>0.02                 | 0.000 oc                        | 435<br>435                   | \$1.85                          |
| Coloresta<br>Sciencesta  | 0.58<br>8.38                           | 9.36<br>9.36                  | 9.36<br>9.30                 | 9.43                         | (.49<br>(.48                 | 0.40<br>0.89                              | 0.03<br>0.03                 | 0.07                         | 0.90                         | 0.36                         | 9, 90<br>9, 90               | 3.43<br>3.75                 | 4.40<br>4.40                 | 2,43<br>2,44                 | 6.04<br>6.04                     | 0.04                         | 0.19<br>8.48                    | 9,30<br>3,30                 | 9.88<br>5.80                    |
| Cotaci   | 8.36                                   | 9,38                          | 9,38                         | 9.38                         | 4.78                         | 5.488                                     | 6.09                         | 8.00                         | 0.98                         | 9.38                         | 9,38                         | 3.38                         | 4.78                         | 48.88                        | 0.00                             | 0.02                         | 3.48                            | 3.33                         |                                 |
| Doel Toos<br>Boel<br>Ide   | 4004140 (17<br>18742 (17<br>173        | 07 gelloss<br>48.82<br>6.61   | 0 866 30<br>630 56<br>6.03   | \$<br>\$76,86<br>8,63        | 838-02<br>0-38               | 483.35<br>0.08                            | 88.88<br>00.6                | 1387.50<br>9.14              | 84.13<br>1.70                | 44.83<br>6.60                | 48,87<br>8,00                | \$99,89<br>0.01              | 8.48                         | 20 - 48<br>0 - 36            | 631.348<br>51.60                 | 8.50<br>2.50                 | 18796.73                        | 8346.13<br>8.24              | 222,28, 80                      |

John Ungvarsky Environmental Scientist USEPA Region IX, Air Division San Francisco, CA 415-972-3963

<sup>&</sup>lt;sup>b</sup> Tables 7-9 and 7-10 in 2016 AQMP. Does not include diurnal or resting loss emissions.

<sup>&</sup>lt;sup>c</sup> 2018 SIP Update, p A-24.

<sup>&</sup>lt;sup>d</sup> 2026 budget rounded up as in 2018 SIP Update, Table VII-3, p 47.